

Claims

1. Synchronizing system for manual transmissions, having a gear (12), a shift sleeve (14) which is displaceably engaged with the gear (12) by internal teeth (16), and having thrusters (26; 26'; 26"; 26''') disposed between the gear (12) and the shift sleeve (14), which have each a box-shaped casing (32) and a spring (34) held in an axial slot (24) of the gear (12) and resting on the bottom (36) of the casing (32), and a pressure member (28) biased against the internal teeth (16) of the shift sleeve (14), characterized in that the casing (32) of the thruster (26; 26'; 26"; 26''') rests while able to tilt on the bottom of the slot (24) of the gear (12).
2. Synchronizing system of claim 1, characterized in that the pressure member (28) is a catch which engages a recess (30) in the internal teeth (16) of the shift sleeve (14).
3. Synchronizing system of claims 1 or 2, characterized in that the casing (32) of the thruster (26; 26') is a body molded from plastic.
4. Synchronizing system of one of the preceding claims, characterized in that the pressure member (26) is held in the casing against loss by crimps (38) formed on the walls of the casing (32).
5. Synchronizing system of one of the preceding claims, characterized in that the bottom (36) of the thruster casing (32) is rounded.
6. Synchronizing system of one of the preceding claims, characterized in that the thruster casing (32) forms projections (42) on the radially outer ends, which reach into the spaces between the internal teeth (16) of the shift sleeve (14).
7. Synchronizing system of claim 6, characterized in that the projections (42) are rounded at the free end, the rounding corresponding to an arc centered on the radially inner end

of the thruster (26; 26').

8. Synchronizing system of one of the preceding claims, characterized in that the casing (32) of the thruster (26) is in the shape of a square or rectangular post.

9. Synchronizing system of claim 8, characterized in that the thruster (26) has a 90° plane of symmetry with respect to its longitudinal axis.

10. Synchronizing system of one of the claims 1 to 7, characterized in that the casing (32) of the thruster (26') has at the radially outer end a thickened head (46) of rectangular plan which extends in the lengthwise direction of the slot (24).

11. Synchronizing system of one of the claims 1 to 10, characterized in that the bottom of the casing (32) of the thruster (26'', 26''') and the bottom of the slot (24) are conformed to one another over contoured surfaces (56,58; 60,62).

12. Synchronizing system of claim 11, characterized in that the casing (32) of the thruster (26'') has a recess (56) which is engaged by a projection (58) formed on the bottom of the slot (24).

13. Synchronizing system of claim 11, characterized in that the casing (32) of the thruster (26'') has a projection (60) on its bottom which engages a recess (62) in the bottom of the slot (24).